

- 3 -

Application No. 10/756,778 – Amendment filed February 1, 2006

REMARKS

Claims 3 and 16-22 remain in the case.

MISCELLANEOUS

The Examiner is advised that contrarily to what is indicated in the declaration filed earlier, the Applicant does not wish to claim priority on any Canadian application. Applicant claims priority however on US provisional application no. 60/448,883 as is apparent in the new section "Cross reference to related applications" of the present application as described above.

REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 3 and 22 have been rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description and enablement requirements. The Applicants respectfully traverse the rejection as follows.

There appears to be a misunderstanding as to the nature of the invention claimed herein. The Examiner appears to believe that the Applicant claims the tridimensional structure (i.e. crystal) of the protein of SEQ ID NO: 8. The Examiner indeed indicated at pages 3-8 of her Office Action that for instance "[t]he instant claims are drawn to any *crystal of a protein* of SEQ ID NO: 8 which comprises an amino acid sequence of a crystal protein contained in the *Bacillus thuringiensis* strain"; "the Applicant did not provide any information about the *crystal structure* of the amino acid sequence of a crystal protein contained in the *Bacillus thuringiensis* strain in claim 22"; "in general for a species of crystal to be adequately structurally described, the following must be adequately disclosed : (1) the *composition of the crystal (exact structural features of all molecules in the crystal must be described [...]) the space group*; and (3) the *unit cell dimensions of the crystal*"; "A singular chemical composition can crystallize differently based on the *crystallization conditions [...]* [our emphasis].

It is respectfully submitted that the Applicant does not claim the crystal structure of any protein. Rather, "crystal" is the terminology used herein to designate a category of protein to which the protein Cry31Aa2 discovered by the inventors of

- 4 -

Application No. 10/756,778 – Amendment filed February 1, 2006

the present invention belongs. The designation "crystal protein" is commonly used in the art and understood by people of relevant skill in the art to designate proteins that are able to crystallize inside bacteria. "Crystal protein" is a synonym to "δ-endotoxin", namely another terminology used in the present application to designate the type of protein that Cry31Aa2 is. (see for instance paragraphs [002], [004] of the present application for occurrences of the terminologies "crystal proteins" and "δ-endotoxin").

In view of the above and foregoing, it is respectfully requested that the Examiner withdraw her rejection of claims 3 and 22 under 35 U.S.C. § 112, first paragraph.

REJECTION UNDER 35 U.S.C. § 102

Claims 3 and 18 have been rejected as being anticipated by Jung Y. C. and Cote J.C. ("Jung") under 35 U.S.C. § 102(A).

Applicants respectfully traverse the rejection as follows.

The sequences of the Cry31Aa2 protein (SEQ ID NO: 1 for the nucleotide and SEQ ID NO: 2 for the polypeptide) were submitted to GenBank on 21st February 2002 under a confidentiality agreement. Pursuant to the Applicant's instructions, the sequences were only made available to the public on 14th August 2004, namely **after the filing of the present application**. Jung is thus not citable against the present application. The Applicant enclosed documents supporting this information. Please thus find enclosed as Schedule A a copy of an e-mail from GenBank confirming the date of publication of August 14, 2004 of submission no. AY081052, namely the access number on GenBank of the Cry31Aa2 sequences. Please also find enclosed as Schedule B a copy of the information that may be accessed on the NCBI database confirming that the data at accession number AY081052 was first seen at NCBI on August 14, 2004. The Examiner may herself verify this information by going to the Sequence Revision History site of GenBank (<http://www.ncbi.nlm.nih.gov/entrez/sutils/girevhist.cgi>) by typing in the accession number AY081052.

Also, for the Examiner's information, the protein of SEQ ID NO: 8, which is a trypsin-digested activated fragment of the 742 amino acids protein that was disclosed in Genbank on August 14, 2004, was not disclosed in Jung.

- 5 -

Application No. 10/756,778 – Amendment filed February 1, 2006

OBJECTION TO CLAIMS

The Examiner objected to claims 16, 17, 19, 20 and 21 because they depend from rejected claim 3. Applicant submits that this objection should fall in view of the above-presented remarks.

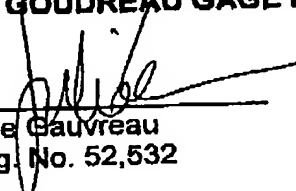
The rejections of the original claims are believed to have been overcome by the present remarks. From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such an action is earnestly solicited.

Authorization is hereby given to charge deposit account no. 07-1742 for any deficiencies or overages in connection with this response.

Respectfully submitted,

AGRICULTURE AGROLIMENTAIRE
CANADA

by: GOUDREAU GAGE DUBUC



Julie Gaudreau
Reg. No. 52,532

Date: February 01, 2006

(514) 397-4374

Encls.: Schedules A and B

Schedule A

We have changed the release date for your GenBank submission AY081052 to.

August 14, 2004.

We have a policy to extend the release date to a minimum of one year from today. Your entry will be released on this date or when the GenBank Accession Number or sequence data is published, whichever is first. If you wish to change this release date, please let us know as soon as possible.

If you have additional information about your sequence or if you wish to make further revisions, please inform us. Revisions to your data may pertain to the bibliography, to the biological data (e.g., new features), or to the sequence data. Please send additional revisions to:

gb-admin@ncbi.nlm.nih.gov

Thank you for your update notification.

Sincerely,

DeAnne Olsen Cravaritis, Ph.D.
The GenBank Submissions Staff
Bethesda, Maryland USA

(301) 496-2475

(301) 480-2918 fax

gb-admin@ncbi.nlm.nih.gov (for replies/updates to entries in GenBank)

info@ncbi.nlm.nih.gov (for general questions regarding GenBank)

Schedule B

Sequence Revision History

Find Accession GI Number or Easel ID or Sequence AY081052

Revision history for AY081052

GI	Version	Update Date	Status
37543233	1	Aug 14 2004 12:05 AM	Live

Accession AY081052 was first seen at NCBI on Aug 14 2004 12:05 AM

BEST AVAILABLE COPY